

Appl. No. 10/816,040

Amdt. dated 01/26/2010

Reply to Office action of 01/13/2010

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.(currently amended) A method to form a magnetically pinned reference layer for a bottom spin valve, comprising:

providing a layer of antiferromagnetic material having a central section that abuts a pair of opposing outer sections, said central section having a first top surface and said outer sections having second top surfaces; and

depositing a layer of magnetic material, a part of which contacts only said second top surfaces, thereby forming said magnetically pinned reference layer, only a part of which is in contact with said layer of antiferromagnetic material.

2. (canceled)

3.( currently amended) The method of claim 1 wherein said pinned reference ~~layer of magnetic material~~ comprises a pair of ferromagnetic layers separated by, and contacting, an antiferromagnetic coupling layer.

4-31 Canceled